

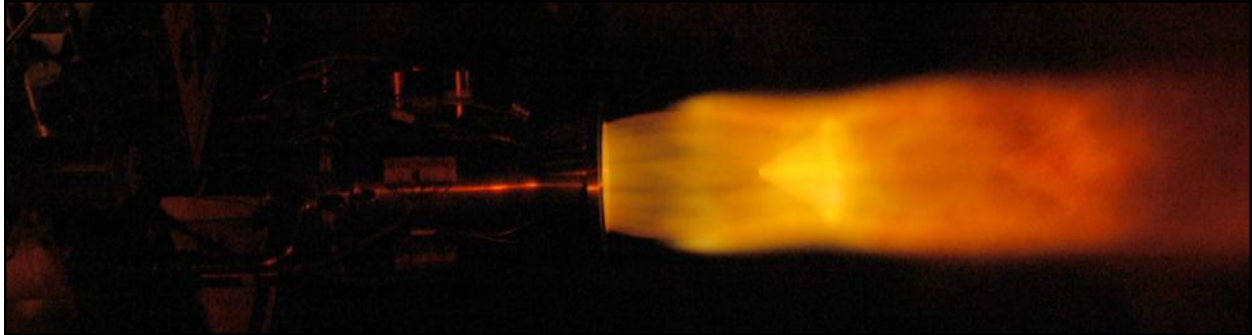
ORION

CREW EXPLORATION VEHICLE

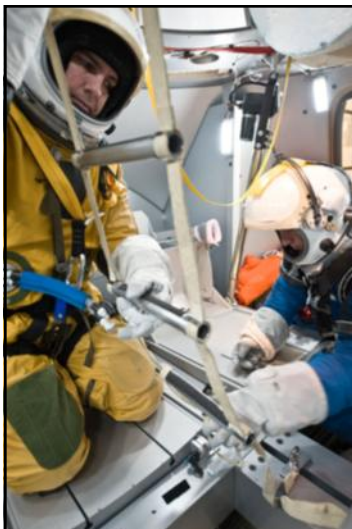
WEEKLY ACCOMPLISHMENTS



07.09.10



Checkout testing of the Orion Main Engine (OME) Development #1 injector (shown above) continued at Aerojet-Sacramento. The tests are initial test validation of the revised manufacturing techniques being employed on the OME injector. The first three tests were conducted with the heat sink test assembly at the nominal OME design point. Testing resumed using the pulse gun test assembly at the nominal OME design point resulting in good performance and the injector face in good condition after the test. Further checkout testing with the pulse gun test assembly is planned for this week.

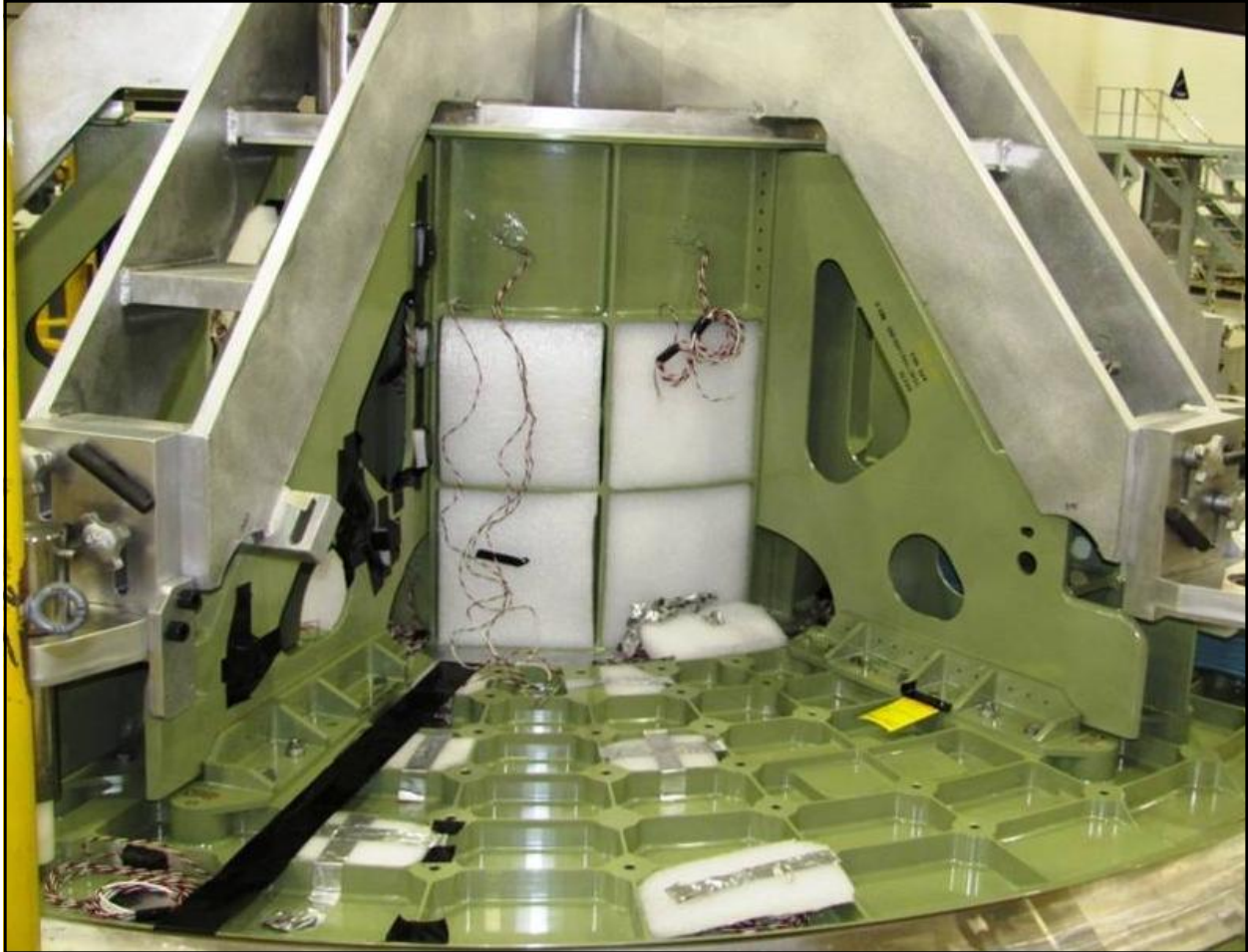


The Orion crew exploration vehicle has successfully completed the Phase 1 Safety Review of NASA's Human Rating Requirements for space exploration in low Earth orbit and beyond. The NASA/Lockheed Martin Orion team earned the approval from NASA's Constellation Safety & Engineering Review Panel (CSERP) upon completion of the review, an essential requirement for the Orion program to move forward to the Critical Design Review and Phase 2 Safety Review.

The safety review process is a rigorous and exhaustive look at the design and operational concepts to assure that all requirements have been adequately met. System safety requirements address potentially catastrophic failures that could result in loss of crew or loss of mission during launch, ascent to orbit, approach and docking to the International Space Station, re-entry, landing, and recovery operations. Thoroughly reviewing spacecraft designs and operations for possible causes of such catastrophic failures, and designing appropriate mitigations for them, is a

critical part of NASA's human rating program.

Shown above (and in banner) is Dustin Gohmert, NASA crew survival equipment subsystem manager, (left) and Zane Ney, crew office representative, conducting emergency egress operations inside the full-scale Orion crew exploration vehicle mockup at the Lockheed Martin Exploration Development Lab in Houston, Texas. Led by the Lockheed Martin Crew Survival Equipment Team, these evaluation exercises help engineers ensure that astronauts can safely exit the spacecraft when fully suited up.



The installation of the forward bay gussets on the Crew Module (CM) Ground Test Article (GTA) is nearing completion at the Michoud Assembly Facility (MAF) in New Orleans, Louisiana. In addition, the MAF team has continued the permanent installation of wire harnesses and has begun installation of the window and closeout panels that are required for the upcoming proof tests.

Joe Mayer and JR Edwards, Business Development Managers for Lockheed Martin, visit with Linda Abraham-Silver, President of the Great Lakes Science Center (GLSC), on a tour of the Center's Orion Crew Exploration Vehicle exhibit. GLSC serves as the newly designated Visitor Center for the NASA Glenn Research Center in Cleveland, OH. Lockheed Martin is the newest corporate sponsor of the Center and plans to support its many public outreach activities in support of NASA and space exploration.

